Contamination Avoidance Detector Test Suite (CADTS)

PM ITTS STOC Industry Conference

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Organization: PM-ITTS-I/STRICOM

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Background

- The CDATS CTEIP project started in FY 01. Technology and prototype development is scheduled to begin in FY03. The overall objective is to develop new instrumentation, methodologies and modeling and simulation tools to evaluate current and developing Chem/Bio detector systems
- Existing test methodologies are not capable of complete evaluation of present and developing CB agent detectors
  - Cannot detect agent challenges at very low concentrations
  - Cannot track/quantify/control simulants in dynamic environment
  - Cannot adequately correlate static chamber results to operational environments
- Existing CB systems are inadequate for credible model

Acquisition/Contracting

Strategy

- Several task orders for bio standoff and point, chem standoff and point (in order of priority)
- Technology and prototype development scheduled for 4 years
- Competition will be full & open with some small business set aside and academia involvement

Overall Issues

- Need significantly improved chem/bio detector evaluation capability
- Develop credible chem/bio capability for chamber and field test

PROGRAM TEAM

Lorraine Castillo	PD	STRICOM
Dr. Lyman Condie	TD	DPG
Armando Sanchez	Systems Engr	STRICOM
Dr. Tom Cao	Chem Tests	DPG
Frances Stites	Bio Tests	DPG
Eddie Meadows	Sup Consult	AEgis Tech
Dr. Art Maret	Scientist	AST, Inc
Leeza Torres	PA	STRICOM
Jill Edwards	Contract Spec	STRICOM

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PD STRATEGY

- **Obtain technology and hardware solutions fro**
  - **COTS**
  - **STOC partners**
  - **Other contractors, private sector, as need**

STATUS:

- **Received 48 approaches from testing commu address requirements**

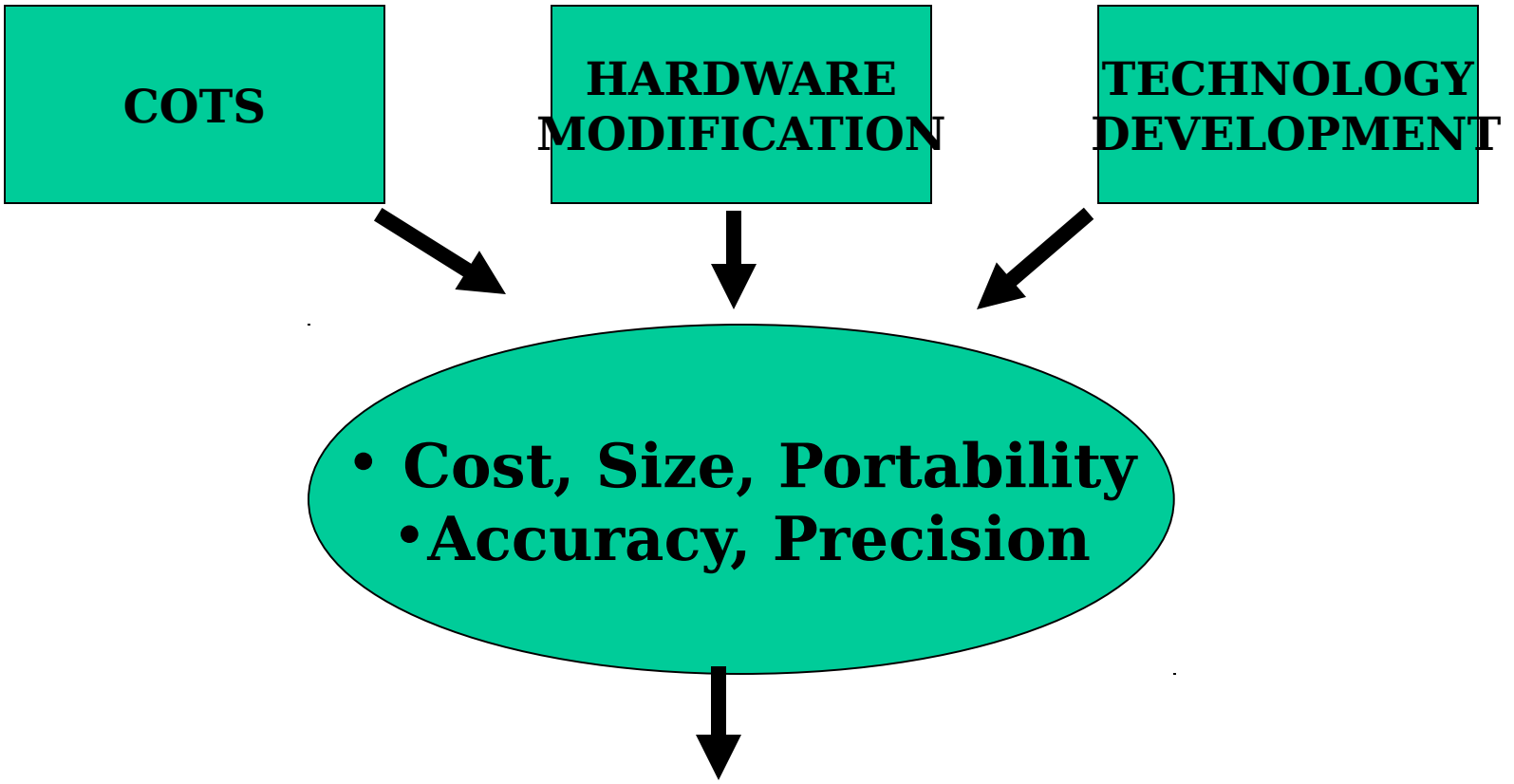
- **Federal Business Opportunity Announcement**

- **Currently receiving and reviewing COTS solu participating in technology demos**

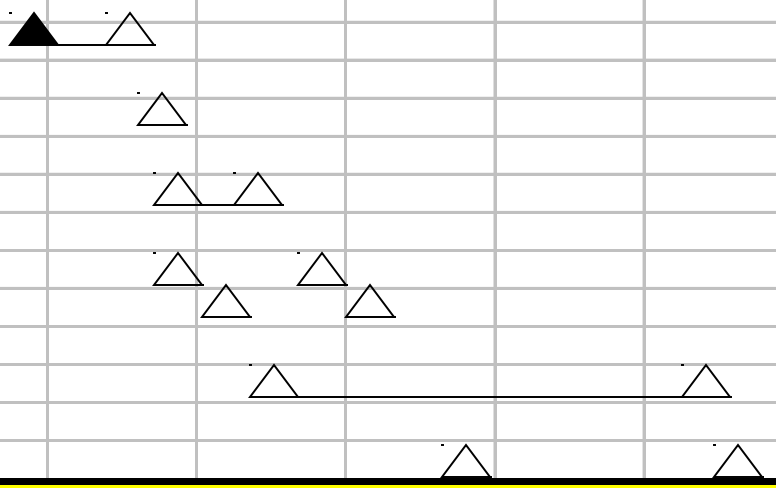
Critical Requirement Functional Areas for Chem/Bio Detector Evaluation

1. Cloud Tracking and Characterization
2. Threat Generation
3. Chamber Referee Systems
4. Agent/Simulant Correlation
5. Modeling and Simulation Tools
6. Test Fixtures
7. Real Time Data Integration

CADTS R&D STRATEGY



CADTS
Master Program Schedule/Funding



Fiscal Year	2001	2002	2003	2004	2005	2006	2007	2008	2009

Dollars in Thousands	Prior	2001	2002	2003	2004	2005	2006	2007	2008	2009
TOTAL Required	0	$	$$	$$	$$$	$$$	$$$			
$ = <$1M										
$$ = $1M - $5M										
$$$ = $5M - $10M										
$$$$ = $10 - $20M										
Quantities	0	0	0	0	0	0	0	0	0	1

IMO

PM-ITTS

Detailed Program Schedule by Phase/Element/Task

Fiscal Year	1Q02	2Q02	3Q02	4Q02	1Q03	2Q03	3Q03	4Q03	1Q04
Requirement Approval		X							
ORD Release/MEP Approval			X						
Draft SOW/RFP Request				X		X		X	
Proposals Due				X		X		X	
Evaluations				X		X		X	
Task Order Award					X		X		X
Task Order Execution									
1. Development									
2. Integration									
3. Test & Evaluation									
4. Validation & Verification									
5. Acceptance/Transition									
6. IOC/FOC								X	

Key Evaluation Criteria

(Basis for Award)

The evaluation factors and significant sub-factors that establish the requirements of acceptability shall be set forth in the solicitation.

- **Criteria(s) may include but are not limited to:**
  - **Technical approach (maturity, validation/verification)**
  - **Program management approach**
  - **Past performance**
  - **Price/Cost**
- **Criteria tailored to individual acquisitions**
- **Will be stated in Task Order or RFP**

SUMMARY

- **Existing test methodologies not capable of fully assessing**
  performance of existing and developmental CB agent
  detectors (standoff and point)
    - currently test only a subset of required performance envelope
    - static testing not representative of true (dynamic) operational environment
    - large scale “live” CB tests very costly, inability to control variables
- **New Chem/Bio test capabilities needed for T&E community**
    - agent challenges at low concentrations
    - dynamic agent/simulant challenges
    - quantification/assessment of interferent effects
    - quantification/tracking of simulant clouds